0430 OIPE

CRF Errors Corrected by the STIC Systems Branch

Serial Number: 09/909,474B

CRF Processing Date: 4/8/02
Edited by: DC
Verified by: _____ (STIC staff)

7

☐ Changed a file from non-ASCII to ASCII

☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.

☐ Edited a format error in the Current Application Data section, specifically: _____

ENTERED

☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other _____.

☐ Added the mandatory heading and subheadings for "Current Application Data".

☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.

☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: _____

☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: _____

☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: _____

☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.

☐ Inserted colons after headings/subheadings. Headings edited included: _____

☐ Deleted extra, invalid, headings used by an applicant, specifically: _____

☑ Deleted: ☑ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/filename at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as _____.

☐ Inserted mandatory headings, specifically: _____

☐ Corrected an obvious error in the response, specifically: _____

☐ Edited identifiers where upper case is used but lower case is required, or vice versa.

☐ Corrected an error in the Number of Sequences field, specifically: _____

☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.

☐ Deleted ***ending*** stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: _____

☐ Other: _____

***Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.**

3/1/95

OIPE

RAW SEQUENCE LISTING DATE: 04/08/2002 P.6
PATENT APPLICATION: US/09/909,474B TIME: 12:59:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

```
 5 <110> APPLICANT: Boylan, John
 6       Bowers, Alex
 8 <120> TITLE OF INVENTION: Novel Serine Threonine Kinase Member, h2520-59
10 <130> FILE REFERENCE: 01017/36524A
12 <140> CURRENT APPLICATION NUMBER: US/09/909,474B
13 <141> CURRENT FILING DATE: 2001-07-19
15 <150> PRIOR APPLICATION NUMBER: US 60/219,204
16 <151> PRIOR FILING DATE: 2000-07-19
18 <160> NUMBER OF SEQ ID NOS: 15
20 <170> SOFTWARE: PatentIn version 3.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 2059
24 <212> TYPE: DNA
25 <213> ORGANISM: Homo sapiens
27 <220> FEATURE:
28 <221> NAME/KEY: CDS
29 <222> LOCATION: (49)..(1122)
31 <400> SEQUENCE: 1
32 gctctgagcc ccggcggcgc ccgggcccac gcggaacgac ggggcgag atg cga gcc      57
33                                                     Met Arg Ala
34                                                     1
36 acc cct ctg gct gct cct gcg ggt tcc ctg tcc agg aag aag cgg ttg      105
37 Thr Pro Leu Ala Ala Pro Ala Gly Ser Leu Ser Arg Lys Lys Arg Leu
38     5                  10                  15
40 gag ttg gat gac aac tta gat acc gag cgt ccc gtc cag aaa cga gct      153
41 Glu Leu Asp Asp Asn Leu Asp Thr Glu Arg Pro Val Gln Lys Arg Ala
42 20                  25                  30                  35
44 cga agt ggg ccc cag ccc aga ctg ccc ccc tgc ctg ttg ccc ctg agc      201
45 Arg Ser Gly Pro Gln Pro Arg Leu Pro Pro Cys Leu Leu Pro Leu Ser
46                 40                  45                  50
48 cca cct act gct cca gat cgt gca act gct gtg gcc act gcc tcc cgt      249
49 Pro Pro Thr Ala Pro Asp Arg Ala Thr Ala Val Ala Thr Ala Ser Arg
50             55                  60                  65
52 ctt ggg ccc tat gtc ctc ctg gag ccc gag gag ggc ggg cgg gcc tac      297
53 Leu Gly Pro Tyr Val Leu Leu Glu Pro Glu Glu Gly Gly Arg Ala Tyr
54         70                  75                  80
56 cgg gcc ctg cac tgc cct aca ggc act gag tat acc tgc aag gtg tac      345
57 Arg Ala Leu His Cys Pro Thr Gly Thr Glu Tyr Thr Cys Lys Val Tyr
58     85                  90                  95
60 ccc gtc cag gaa gcc ctg gcc gtg ctg gag ccc tac gcg cgg ctg ccc      393
61 Pro Val Gln Glu Ala Leu Ala Val Leu Glu Pro Tyr Ala Arg Leu Pro
62 100                 105                 110                 115
65 ccg cac aag cat gtg gct cgg ccc act gag gtc ctg gct ggt acc cag      441
```

RAW SEQUENCE LISTING DATE: 04/08/2002
PATENT APPLICATION: US/09/909,474B TIME: 12:59:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

```
66 Pro His Lys His Val Ala Arg Pro Thr Glu Val Leu Ala Gly Thr Gln
67                 120                 125                 130
69 ctc ctc tac gcc ttt ttc act cgg acc cat ggg gac atg cac agc ctg      489
70 Leu Leu Tyr Ala Phe Phe Thr Arg Thr His Gly Asp Met His Ser Leu
71             135                 140                 145
73 gtg cga agc cgc cac cgt atc cct gag cct gag gct gcc gtg ctc ttc      537
74 Val Arg Ser Arg His Arg Ile Pro Glu Pro Glu Ala Ala Val Leu Phe
75         150                 155                 160
77 cgc cag atg gcc acc gcc ctg gcg cac tgt cac cag cac ggt ctg gtc      585
78 Arg Gln Met Ala Thr Ala Leu Ala His Cys His Gln His Gly Leu Val
79     165                 170                 175
81 ctg cgt gat ctc aag ctg tgt cgc ttt gtc ttc gct gac cgt gag agg      633
82 Leu Arg Asp Leu Lys Leu Cys Arg Phe Val Phe Ala Asp Arg Glu Arg
83 180                 185                 190                 195
85 aag aag ctg gtg ctg gag aac ctg gag gac tcc tgc gtg ctg act ggg      681
86 Lys Lys Leu Val Leu Glu Asn Leu Glu Asp Ser Cys Val Leu Thr Gly
87                 200                 205                 210
89 cca gat gat tcc ctg tgg gac aag cac gcg tgc cca gcc tac gtg gga      729
90 Pro Asp Asp Ser Leu Trp Asp Lys His Ala Cys Pro Ala Tyr Val Gly
91             215                 220                 225
93 cct gag ata ctc agc tca cgg gcc tca tac tcg ggc aag gca gcc gat      777
94 Pro Glu Ile Leu Ser Ser Arg Ala Ser Tyr Ser Gly Lys Ala Ala Asp
95         230                 235                 240
97 gtc tgg agc ctg ggc gtg gcg ctc ttc acc atg ctg gcc ggc cac tac      825
98 Val Trp Ser Leu Gly Val Ala Leu Phe Thr Met Leu Ala Gly His Tyr
99     245                 250                 255
101 ccc ttc cag gac tcg gag cct gtc ctg ctc ttc ggc aag atc cgc cgc      873
102 Pro Phe Gln Asp Ser Glu Pro Val Leu Leu Phe Gly Lys Ile Arg Arg
103 260                 265                 270                 275
105 ggg gcc tac gcc ttg cct gca ggc ctc tcg gcc cct gcc cgc tgt ctg      921
106 Gly Ala Tyr Ala Leu Pro Ala Gly Leu Ser Ala Pro Ala Arg Cys Leu
107                 280                 285                 290
109 gtt cgc tgc ctc ctt cgt cgg gag cca gct gaa cgg ctc aca gcc aca      969
110 Val Arg Cys Leu Leu Arg Arg Glu Pro Ala Glu Arg Leu Thr Ala Thr
111             295                 300                 305
113 ggc atc ctc ctg cac ccc tgg ctg cga cag gac ccg atg ccc tta gcc     1017
114 Gly Ile Leu Leu His Pro Trp Leu Arg Gln Asp Pro Met Pro Leu Ala
115         310                 315                 320
117 cca acc cga tcc cat ctc tgg gag gct gcc cag gtg gtc cct gat gga     1065
118 Pro Thr Arg Ser His Leu Trp Glu Ala Ala Gln Val Val Pro Asp Gly
119     325                 330                 335
121 ctg ggg ctg gac gaa gcc agg gaa gag gag gga gac aga gaa gtg gtt     1113
122 Leu Gly Leu Asp Glu Ala Arg Glu Glu Glu Gly Asp Arg Glu Val Val
123 340                 345                 350                 355
125 ctg tat ggc taggaccacc ctactacacg ctcagctgcc aacagtggat             1162
126 Leu Tyr Gly
129 tgagtttggg ggtagctcca agccttctcc tgcctctgaa ctgagccaaa ccttcagtgc   1222
131 cttccagaag ggagaaaggc agaagcctgt gtggagtgtg ctgtgtacac atctgctttg   1282
133 ttccacacac atgcagttcc tgcttgggtg cttatcaggt gccaagccct gttctcggtg   1342
```

RAW SEQUENCE LISTING DATE: 04/08/2002
PATENT APPLICATION: US/09/909,474B TIME: 12:59:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

ctgggagtac agcagtgagc aaaggagaca atattccctg ctcacagaga tgacaaactg 1402
gcatccttga gctgacaaca cttttccatg accataggtc actgtctaca ctgggtacac 1462
tttgtaccag tgtcggcctc cactgatgct ggtgctcagg cacctctgtc caaggacaat 1522
ccctttcaca aacaaaccag ctgcctttgt atcttgtacc ttttcagaga aagggaggta 1582
tccctgtgcc aaaggctcca ggcctctccc ctgcaactca ggacccaagc ccagctcact 1642
ctgggaactg tgttcccagc atctctgtcc tcttgattaa gagattctcc ttccaggcct 1702
aagcctggga tttgggccag agataagaat ccaaactatg aggctagttc ttgtctaact 1762
caagactgtt ctggaatgag ggtccaggcc tgtcaaccat ggggcttctg acctgagcac 1822
caaggttgag ggacaggatt aggcagggtc tgtcctgtgg ccacctggaa agtcccaggt 1882
gggactcttc tggggacact tggggtccac aatcccaggt ccatactcta ggttttggat 1942
accatgagta tgtatgttta cctgtgccta ataaaggaga attatgaaat aaaaaaaaaa 2002
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaa 2059

<210> SEQ ID NO: 2
<211> LENGTH: 358
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 2

```
Met Arg Ala Thr Pro Leu Ala Ala Pro Ala Gly Ser Leu Ser Arg Lys
1               5                  10                  15
Lys Arg Leu Glu Leu Asp Asp Asn Leu Asp Thr Glu Arg Pro Val Gln
            20                  25                  30
Lys Arg Ala Arg Ser Gly Pro Gln Pro Arg Leu Pro Pro Cys Leu Leu
        35                  40                  45
Pro Leu Ser Pro Pro Thr Ala Pro Asp Arg Ala Thr Ala Val Ala Thr
    50                  55                  60
Ala Ser Arg Leu Gly Pro Tyr Val Leu Leu Glu Pro Glu Glu Gly Gly
65                  70                  75                  80
Arg Ala Tyr Arg Ala Leu His Cys Pro Thr Gly Thr Glu Tyr Thr Cys
                85                  90                  95
Lys Val Tyr Pro Val Gln Glu Ala Leu Ala Val Leu Glu Pro Tyr Ala
            100                 105                 110
Arg Leu Pro Pro His Lys His Val Ala Arg Pro Thr Glu Val Leu Ala
        115                 120                 125
Gly Thr Gln Leu Leu Tyr Ala Phe Phe Thr Arg Thr His Gly Asp Met
    130                 135                 140
His Ser Leu Val Arg Ser Arg His Arg Ile Pro Glu Pro Glu Ala Ala
145                 150                 155                 160
Val Leu Phe Arg Gln Met Ala Thr Ala Leu Ala His Cys His Gln His
                165                 170                 175
Gly Leu Val Leu Arg Asp Leu Lys Leu Cys Arg Phe Val Phe Ala Asp
            180                 185                 190
Arg Glu Arg Lys Lys Leu Val Leu Glu Asn Leu Glu Asp Ser Cys Val
        195                 200                 205
Leu Thr Gly Pro Asp Asp Ser Leu Trp Asp Lys His Ala Cys Pro Ala
    210                 215                 220
Tyr Val Gly Pro Glu Ile Leu Ser Ser Arg Ala Ser Tyr Ser Gly Lys
225                 230                 235                 240
Ala Ala Asp Val Trp Ser Leu Gly Val Ala Leu Phe Thr Met Leu Ala
                245                 250                 255
```

RAW SEQUENCE LISTING DATE: 04/08/2002
PATENT APPLICATION: US/09/909,474B TIME: 12:59:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

```
233 Gly His Tyr Pro Phe Gln Asp Ser Glu Pro Val Leu Leu Phe Gly Lys
234             260                 265                 270
237 Ile Arg Arg Gly Ala Tyr Ala Leu Pro Ala Gly Leu Ser Ala Pro Ala
238         275                 280                 285
241 Arg Cys Leu Val Arg Cys Leu Leu Arg Arg Glu Pro Ala Glu Arg Leu
242     290                 295                 300
245 Thr Ala Thr Gly Ile Leu Leu His Pro Trp Leu Arg Gln Asp Pro Met
246 305                 310                 315                 320
249 Pro Leu Ala Pro Thr Arg Ser His Leu Trp Glu Ala Ala Gln Val Val
250                 325                 330                 335
253 Pro Asp Gly Leu Gly Leu Asp Glu Ala Arg Glu Glu Glu Gly Asp Arg
254             340                 345                 350
257 Glu Val Val Leu Tyr Gly
258         355
261 <210> SEQ ID NO: 3
262 <211> LENGTH: 21
263 <212> TYPE: DNA
264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: PCR Primer
269 <400> SEQUENCE: 3
270 tggtgctgga gaacctggag g                                          21
273 <210> SEQ ID NO: 4
274 <211> LENGTH: 21
275 <212> TYPE: DNA
276 <213> ORGANISM: Artificial Sequence
278 <220> FEATURE:
279 <223> OTHER INFORMATION: PCR Primer
W--> 280 <400> SEQUENCE: 4
281 cgagtcctgg aaggggtagt g                                          21
284 <210> SEQ ID NO: 5
285 <211> LENGTH: 11
286 <212> TYPE: PRT
287 <213> ORGANISM: Artificial Sequence
289 <220> FEATURE:
290 <223> OTHER INFORMATION: HIV TAT peptide
292 <400> SEQUENCE: 5
294 Tyr Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg
295 1               5                   10
297 <210> SEQ ID NO: 6
298 <211> LENGTH: 20
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial Sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: PCR Primer
305 <400> SEQUENCE: 6
306 cggggcgaga tgcgagccac                                            20
309 <210> SEQ ID NO: 7
310 <211> LENGTH: 20
```

RAW SEQUENCE LISTING DATE: 04/08/2002
PATENT APPLICATION: US/09/909,474B TIME: 12:59:25

Input Set : A:\PTO.DC.txt
Output Set: N:\CRF3\04082002\I909474B.raw

<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence
<220> FEATURE:
<223> OTHER INFORMATION: PCR Primer
<400> SEQUENCE: 7
agggtggtcc tagccataca 20

<210> SEQ ID NO: 8
<211> LENGTH: 358
<212> TYPE: PRT
<213> ORGANISM: Homo sapiens
<400> SEQUENCE: 8

```
Met Arg Ala Thr Pro Leu Ala Ala Pro Ala Gly Ser Leu Ser Arg Lys
1               5                  10                  15
Lys Arg Leu Glu Leu Asp Asp Asn Leu Asp Thr Glu Arg Pro Val Gln
            20                  25                  30
Lys Arg Ala Arg Ser Gly Pro Gln Pro Arg Leu Pro Pro Cys Leu Leu
        35                  40                  45
Pro Leu Ser Pro Pro Thr Ala Pro Asp Arg Ala Thr Ala Val Ala Thr
    50                  55                  60
Ala Ser Arg Leu Gly Pro Tyr Val Leu Leu Glu Pro Glu Glu Gly Gly
65                  70                  75                  80
Arg Ala Tyr Gln Ala Leu His Cys Pro Thr Gly Thr Glu Tyr Thr Cys
                85                  90                  95
Lys Val Tyr Pro Val Gln Glu Ala Pro Ala Val Leu Glu Pro Tyr Ala
            100                 105                 110
Arg Leu Pro Pro His Lys His Val Ala Arg Pro Thr Glu Val Leu Ala
        115                 120                 125
Gly Thr Gln Leu Leu Tyr Ala Phe Phe Thr Arg Thr His Gly Asp Met
    130                 135                 140
His Ser Leu Val Arg Ser Arg His Arg Ile Pro Glu Pro Glu Ala Ala
145                 150                 155                 160
Val Leu Phe Arg Gln Met Ala Thr Ala Leu Ala His Cys His Gln His
                165                 170                 175
Gly Leu Val Leu Arg Asp Leu Lys Leu Cys Arg Phe Val Phe Ala Asp
            180                 185                 190
Arg Glu Arg Lys Lys Leu Val Leu Glu Asn Leu Glu Asp Ser Cys Val
        195                 200                 205
Leu Thr Gly Pro Asp Asp Ser Leu Trp Asp Lys His Ala Cys Pro Ala
    210                 215                 220
Tyr Val Gly Pro Glu Ile Leu Ser Ser Arg Ala Ser Tyr Ser Gly Lys
225                 230                 235                 240
Ala Ala Asp Val Trp Ser Leu Gly Val Ala Leu Phe Thr Met Leu Ala
                245                 250                 255
Gly His Tyr Pro Phe Gln Asp Ser Glu Pro Val Leu Leu Phe Gly Lys
            260                 265                 270
Ile Arg Arg Gly Ala Tyr Ala Leu Pro Ala Gly Leu Ser Ala Pro Ala
        275                 280                 285
Arg Cys Leu Val Arg Cys Leu Leu Arg Arg Glu Pro Ala Glu Arg Leu
    290                 295                 300
```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 04/08/2002
PATENT APPLICATION: **US/09/909,474B** TIME: 12:59:26

Input Set : **A:\PTO.DC.txt**
Output Set: **N:\CRF3\04082002\I909474B.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; Xaa Pos. 136,138,141,142,143,152

VERIFICATION SUMMARY DATE: 04/08/2002
PATENT APPLICATION: **US/09/909,474B** TIME: 12:59:26

Input Set : **A:\PTO.DC.txt**
Output Set: **N:\CRF3\04082002\I909474B.raw**

L:280 M:283 W: Missing Blank Line separator, <400> field identifier
L:458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:128
L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:144

OIPE

Does Not Comply
Corrected Diskette Needed

RAW SEQUENCE LISTING DATE: 04/04/2002
PATENT APPLICATION: US/09/909,474B TIME: 16:59:39

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\04042002\I909474B.raw

```
  5 <110> APPLICANT: Boylan, John
  6       Bowers, Alex
  8 <120> TITLE OF INVENTION: Novel Serine Threonine Kinase Member, h2520-59
 10 <130> FILE REFERENCE: 01017/36524A
 12 <140> CURRENT APPLICATION NUMBER: US/09/909,474B
 13 <141> CURRENT FILING DATE: 2001-07-19
 15 <150> PRIOR APPLICATION NUMBER: US 60/219,204
 16 <151> PRIOR FILING DATE: 2000-07-19
 18 <160> NUMBER OF SEQ ID NOS: 15
 20 <170> SOFTWARE: PatentIn version 3.0
```

ERRORED SEQUENCES

```
644 <210> SEQ ID NO: 15
645 <211> LENGTH: 25
646 <212> TYPE: PRT
647 <213> ORGANISM: Homo sapiens
649 <400> SEQUENCE: 15
651 Arg Ser His Leu Trp Glu Ala Ala Gln Val Val Pro Asp Gly Leu Gly
652 1               5                   10                  15
654 Leu Asp Glu Ala Arg Glu Glu Glu Cys
655             20                  25
E--> 658 (-4-) - delete
```

VERIFICATION SUMMARY DATE: 04/04/2002
PATENT APPLICATION: US/09/909,474B TIME: 16:59:40

Input Set : A:\PTO.VSK.txt
Output Set: N:\CRF3\04042002\I909474B.raw

L:280 M:283 W: Missing Blank Line separator, <400> field identifier
L:458 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:461 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9
L:658 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:15